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Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0084-03

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

TRANSMITTAL OF RESPONSES TO THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE DRAFT PROJECT SPECIFIC PLAN FOR AREA 7, PHASE I PRECERTIFICATION PHYSICAL SAMPLING AND REAL-TIME SCAN

References:
1. Letter, J. Saric to J. Reising, "A7 Phase 1 Precertification," dated October 3, 2002
2. Letter DOE-0007-03, J. Reising to J. Saric and T. Schneider, "Transmittal of Responses to Ohio Environmental Protection Agency Comments and the Revised Project Specific Plan for Area 7, Phase I Precertification Physical Sampling and Real-Time Scan," dated October 4, 2002

Enclosed for your approval are responses to the United States Environmental Protection Agency (USEPA) comments on the draft Project Specific Plan (PSP) for Area 7, Phase I (A7PI) Precertification Physical Sampling and Real-Time Scan. Prior to receipt of these EPA comments, the Department of Energy (DOE) transmitted the revised version of this PSP, which incorporated DOE's responses to the Ohio Environmental Protection Agency (OEPA) comments (see above references). As noted in the comment responses, DOE has addressed these comments within the comment response document. Resulting changes have been addressed in the field, and will be reflected in the forthcoming Post-Excavation As-Built Report for A7PI. Therefore, no additional revision of the PSP will be necessary.

The Post-Excavation As-Built Report for A7PI will be submitted within one month from the end of all A7PI excavation activities, and will present the following:

- The extent of excavation completed in the area
- Soil characterization activities and the constituent of concern conditions remaining at final grade; and
- Future phases of soil remediation in the Silos area.

If you have any questions or need further information, please contact Robert Janke at (513) 648-3124.

Sincerely,

Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:R.J. Janke

Enclosures: As Stated

cc w/enclosures:
R. Janke, OH/FEMP
T. Schneider, OEPA-Dayton (three copies of enclosure)
M. Cullerton, Tetra Tech
AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosures:
R. Greenberg, EM-31/CLOV
J. Reising, OH/FEMP
A. Tanner, OH/FEMP
R. Abitz, Fluor Fernald, Inc./MS46
K. Blades, Fluor Fernald, Inc./MS64
D. Carr, Fluor Fernald, Inc./MS2
J. Chiou, Fluor Fernald, Inc./MS64
T. Hagen, Fluor Fernald, Inc./MS9
E. Kroger, Fluor Fernald, Inc./MS64
F. Miller, Fluor Fernald, Inc./MS64
ECDC, Fluor Fernald, Inc./MS52-7

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY TECHNICAL REVIEW COMMENTS ON THE DRAFT PROJECT SPECIFIC PLAN FOR AREA 7, PHASE I PRECERTIFICATION PHYSICAL SAMPLING AND REAL-TIME SCAN (20500-PSP-0003, REVISION A)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

SPECIFIC COMMENTS

Commenting Organization: U.S. EPA — Commentor: Saric
Section #: 1.3 — Page #: 1-1 — Line #: 29 and 30
Original Specific Comment #: 1

Comment: The project specific plan (PSP) states that "all samples are to be transported from the field to the on-site laboratory, where they will be analyzed or shipped to an off-site laboratory, as appropriate." The text should be revised to (1) identify the samples and associated analyses for the on-site and off-site laboratories and (2) explain the rationale for laboratory selection. The text should also discuss potential data comparability issues associated with the analytical results that will be obtained from the on- and off-site laboratories.

Response: The rationale for the selection of the appropriate laboratory is dependent upon the capacity of the onsite laboratory. When the onsite laboratory cannot meet the requests of the project, a contract is set in place for the analyses to be performed by a Sitewide Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Quality Assurance Project Plan (SCQ) approved laboratory. All laboratories, including the onsite laboratory, must follow the protocols that are identified in the SCQ for the analysis of samples from the Fernald Site. The SCQ provides the consistency between onsite and offsite data quality whereby addressing any potential comparability issues.

Action: None.

Commenting Organization: U.S. EPA — Commentor: Saric
Section #: 1.3 — Page #: 1-2 — Line #: 4 and 5
Original Specific Comment #: 2

Comment: According to the PSP, the field activities must be consistent with the Data Quality Objectives (DQO) SL-054, Revision 0 (Appendix A), which states that "any physical soil samples collected during the precertification will be collected under a separate DQO." Because physical soil samples are to be collected as part of the proposed precertification investigation, the PSP should be revised to cite the appropriate DQO and to include it in an appendix.

Response: The DQOs for all physical samples collected under this PSP are consistent with DQO SL-048, Delineating the Extent of Constituents of Concern During Remediation Sampling, Revision 5. This DQO includes Soil and Disposal Facility Project (SDFP) guidelines for DQOs, as identified in the Sitewide Excavation Plan (SEP).

Action: Instead of reissuing the PSP, a Post-Excavation As-Built Report for Area 7, Phase I (A7PI) will be issued to document final grade and soil contamination conditions prior to construction of the Silos Remediation Facilities. This report will identify how physical samples were collected per DQO SL-048.

Commenting Organization: U.S. EPA | Commentor: Saric
Section #: 2.1 | Page #: 2-1 | Line #: 19 and 20
Original Specific Comment #: 3

Comment: The text states that "if a hot spot is confirmed, delineation will take place as another phase of precertification under this PSP." This statement implies that the delineation will be done under Phase III. However, Table 2-1 of the PSP indicates that both hot spot confirmation and delineation will be done under Phase II. This apparent inconsistency should be resolved.

Response: Agree that there is an apparent inconsistency. For clarification purposes, hot spot confirmation and delineation readings take place under Precertification Phase 2. Precertification Phase 3 includes verification readings obtained after removal of a hot spot.

Action: The Post-Excavation As-Built Report for A7PI will clarify the readings obtained in each phase of precertification. Also, future precertification PSPs will clearly identify the purpose of real-time measurements obtained during each of the three precertification phases.

Commenting Organization: U.S. EPA | Commentor: Saric
Section #: 2.1.1 | Page #: 2-1 | Line #: 28 and 29
Original Specific Comment #: 4

Comment: The text states that "one or more batch files will be acquired for each subarea." The terms "batch file" and "subarea" should be defined in the context of the precertification investigation. For example, the text should be revised to state how many measurements will typically constitute a batch file.

Response: A batch file contains hundreds to thousands of 4-second measurements, with the size of the file being dependent on the time it takes to scan the area of interest. A subarea is simply some portion of the remediation area separated based field conditions, schedule, or other logical considerations.

Action: None. Clarification of terms is provided in the response.

Commenting Organization: U.S. EPA | Commentor: Saric
Section #: 2.1.1 | Page #: 2-2 | Line #: 7 through 9
Original Specific Comment #: 5

Comment: According to the PSP, the high-purity germanium (HPGe) detector readings will be obtained "using a triangular grid with 11-M nodes (approximately 95 percent coverage)." It is unclear whether "11-M" signifies an equilateral triangle whose sides are 11 meters long or has some other meaning. The text should be revised to clarify this matter.

Response: "11-M" does signify an equilateral triangle with sides 11 meters long. Eleven meters is the standard spacing between triangular nodes during Phase 1 measurements, per the Real-Time Instrumentation Measurement Program (RTIMP) protocols.

Action: None. Clarification is provided in the response.

Commenting Organization: U.S. EPA | Commentor: Saric
Section #: 2.1.1 | Page #: 2-2 | Line #: 9 through 12
Original Specific Comment #: 6

Comment: The PSP states that "if the HPGe identifies a total uranium concentration greater than two times the FRL (2xFRL) when set at the 1-meter height, Phase 2 measurements will be obtained at that location with a detector height of 31 cm to confirm and delineate the hot spot, as necessary." It is unclear why only total uranium concentrations and not radium-226 and thorium-232 concentrations are to be compared to the final remediation levels (FRLs). The text should be revised to clarify this matter.

Response: Agree. The PSP should have identified that radium-226 and thorium-232 concentrations are also compared to the 2x FRL for precertification attainment.

Action: The Post-Excavation As-Built Report for A7PI will identify that Phase 1 HPGe total uranium, as well as radium-226 and thorium-232 results, are compared to the 2x FRL target level to determine where Phase 2 hot spot confirmation readings are necessary. Also, future precertification PSPs will correct this inaccuracy.

Commenting Organization: U.S. EPA | Commentor: Saric
Section #: 2.2 | Page #: 2-5 | Line #: 28 and 29
Original Specific Comment #: 7

Comment: The text states that "physical sampling will be conducted to confirm that the unbound concentrations of arsenic are below FRL". The text should be revised to explain what the term "unbound" means in the context of the PSP.

Response: The goal of remediation sampling is to define the extent of soil that exceeds a particular action level. When analytical results are available to demonstrate that an area of soil above the action level (in this case, the FRL) is confined by results below the FRL (both laterally and at depth), then that above-FRL soil is said to be "bound". Therefore, the term "unbound" refers to results above the FRL that *do not* have sufficient adjacent analytical data to bound the spatial extent of that FRL exceedance. In this instance, during the predesign investigation phase, above-FRL concentrations of arsenic were identified in the deepest sample collected at several borings. Therefore, there were no samples collected at intervals deeper than the FRL exceedance interval, and are thus considered to be "unbound".

Action: None. Clarification of terms is provided in the response.

Commenting Organization: U.S. EPA | Commentor: Saric
Section #: NA | Page #: 2-9 | Line #: NA
Original Specific Comment #: 8

Comment: Table 2-1 lists only three sodium iodide-based field instruments instead of four instruments for use during Precertification Phase 1. The table should be revised to include the Environmental Monitoring System in order to be consistent with other parts of the PSP. In addition, the detector heights for the sodium iodide-based instruments should be added to the table.

Response: Agree that the Environmental Monitoring System (EMS) can be used in Precertification Phase 1 and should be identified in Table 2-1.

Action: The Post-Excavation As-Built Report for A7PI will identify the real-time equipment actually used to collect the A7PI Precertification Phase 1 measurements. Also, similar tables in future precertification PSPs will identify that the EMS can be used in Phase I, with a detector height of 31 cm.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: NA Page #: 2-10 Line #: NA
Original Specific Comment #: 9
Comment: Table 2-5 lists three analytical methods for measuring arsenic concentrations in soil samples. The table should be revised to identify one sample preparation method [for example, "Test Methods for Evaluating Solid Waste" (SW-846) Method 3050B] and one sample analysis method (for example, SW-846 Method 7060A).

Response: Table 2-5 represents a summary of available methods of analysis for arsenic, all of which have an associated method referenced in the SCQ. The laboratory is permitted to utilize any SCQ approved method for the preparation and analysis of arsenic at the required Analytical Support Level (ASL). Allowing for multiple analytical options provides the best available method to be used at any given time without sacrificing data quality.

Action: None.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 5.0 Page #: 5-1 Line #: 29 and 30
Original Specific Comment #: 10
Comment: The text refers to Phase 3 HPGe data for the first time in the PSP. The PSP should be revised to be consistent in describing the number of phases associated with the proposed precertification investigation.

Response: Agree that the measurements obtained during each of the precertification phases should be clearly identified.

Action: The Post-Excavation As-Built Report for A7PI will clarify the readings obtained in each phase of precertification. Also, future precertification PSPs will clearly identify the purpose of real-time measurements obtained during each of the three precertification phases.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 5.0 Page #: 5-2 Line #: NA
Original Specific Comment #: 11
Comment: Section 5.0 does not discuss the data validation efforts associated with the laboratory sample analyses. The text should be revised to state that 100 percent of the laboratory data will be validated by a party that is independent of the data generating group.

Response: Per the SEP and DQO SL-048 (identified in the response to U.S. EPA Specific Comment No. 2), SDFP project requirements for precertification data are 10 percent. This requirement will be met for physical sample data collected under this PSP.

Action: None.